

Claims

What is claimed is:

1 1. An information processing system, comprising:
2 a first computing device for:
3 through a first network, receiving an information packet originating from a client;
4 in response to the information packet, identifying a computing device that stores a data
5 structure of a connection with the client;
6 if the identified computing device is the first computing device, performing an operation
7 in response to the information packet; and
8 if the identified computing device is a second computing device, outputting the
9 information packet through a second network to the second computing device for performing the
10 operation in response to the information packet, such that the output information packet bypasses
11 the first network.

1 2. The system of Claim 1 wherein the first computing device is a network interface
2 card.

1 3. The system of Claim 1 wherein the first network includes a local area network.

1 4. The system of Claim 3 wherein the local area network is coupled through a global
2 computer network to the client.

1 5. The system of Claim 1 wherein the second network includes a local area network.

1 6. The system of Claim 1 wherein the first network includes a first local area
2 network, and wherein the second network includes a second local area network.

1 7. The system of Claim 1 wherein the operation is part of a software application.

1 8. The system of Claim 7 wherein the software application is a socket application.

1 9. The system of Claim 1 wherein the information packet is addressed by the client to
2 the first computing device, and wherein the first computing device is for receiving the information
3 packet through the first network in response to the addressing.

1 10. The system of Claim 1 wherein the operation includes outputting a response packet
2 to the client, and wherein the first computing device is for:

3 if the identified computing device is the second computing device, outputting the
4 information packet through the second network to the second computing device for outputting the
5 response packet to the client, such that the output response packet bypasses the first computing
6 device.

1 11. An information processing system, comprising:
2 a first computing device for:
3 through a first local area network, receiving an information packet from a global computer
4 network; and
5 through a second local area network, in response to at least the information packet and a
6 state of at least one of the first computing device and a second computing device, selectively
7 outputting the information packet to the second computing device, such that the output
8 information packet bypasses the first local area network.

1 12. The system of Claim 11 wherein the first computing device is a network interface
2 card.

1 13. The system of Claim 11 wherein the information packet originates from a client,
2 and wherein the first local area network is coupled through the global computer network to the
3 client.

1 14. The system of Claim 11 wherein the information packet originates from a client,
2 and wherein the first computing device is for:
3 through the second local area network, in response to at least the information packet and
4 the state, selectively outputting the information packet to the second computing device by
5 outputting an encapsulated information packet to the second computing device, the encapsulated
6 information packet including the information packet and a reference to a data structure of a
7 connection with the client.

1 15. The system of Claim 14 wherein the reference is included within a single header of
2 the encapsulated information packet.

1 16. The system of Claim 11 wherein the first computing device is for:
2 through the second local area network, in response to at least the information packet and
3 the state, selectively outputting the information packet to the second computing device for
4 performing an operation in response to the information packet.

1 17. The system of Claim 16 wherein the information packet originates from a client,
2 wherein the first local area network is coupled through the global computer network to the client,
3 wherein the operation includes outputting a response packet to the client through the first local
4 area network and the global computer network, and wherein the first computing device is for:
5 through the second local area network, in response to at least the information packet and
6 the state, selectively outputting the information packet to the second computing device for
7 outputting the response packet to the client, such that the output response packet bypasses the first
8 computing device.

1 18. The system of Claim 16 wherein the operation is part of a software application.

1 19. The system of Claim 18 wherein the software application is a socket application.

1 20. The system of Claim 11 wherein the information packet is addressed by the client
2 to the first computing device, and wherein the first computing device is for receiving the
3 information packet through the first local area network in response to the addressing.

1 21. The system of Claim 11 wherein the first computing device is for receiving at least
2 a portion of the state from the second computing device through a third local area network.

1 22. The system of Claim 11 wherein the first local area network includes a hub.

1 23. The system of Claim 11 wherein the first local area network includes a Layer 2
2 switch, and wherein the Layer 2 switch is coupled through a router device to the global computer
3 network.

- 1 24. The system of Claim 11 wherein the first local area network includes a Layer 3
2 switch, and wherein the Layer 3 switch is coupled to the global computer network.

1 25. A method performed by a first computing device of an information processing
2 system, the method comprising:
3 through a first network, receiving an information packet originating from a client;
4 in response to the information packet, identifying a computing device that stores a data
5 structure of a connection with the client;
6 if the identified computing device is the first computing device, performing an operation
7 in response to the information packet; and
8 if the identified computing device is a second computing device, outputting the
9 information packet through a second network to the second computing device for performing the
10 operation in response to the information packet, such that the output information packet bypasses
11 the first network.

1 26. The method of Claim 25 wherein the first computing device is a network interface
2 card.

1 27. The method of Claim 25 wherein the first network includes a local area network.

1 28. The method of Claim 27 wherein the local area network is coupled through a
2 global computer network to the client.

1 29. The method of Claim 25 wherein the second network includes a local area
2 network.

1 30. The method of Claim 25 wherein the first network includes a first local area
2 network, and wherein the second network includes a second local area network.

1 31. The method of Claim 25 wherein the operation is part of a software application.

1 32. The method of Claim 31 wherein the software application is a socket application.

1 33. The method of Claim 25 wherein the information packet is addressed by the client
2 to the first computing device, and wherein the method comprises:
3 receiving the information packet through the first network in response to the addressing.

1 34. The method of Claim 25 wherein the operation includes outputting a response
2 packet to the client, and wherein the method comprises:
3 if the identified computing device is the second computing device, outputting the
4 information packet through the second network to the second computing device for outputting the
5 response packet to the client, such that the output response packet bypasses the first computing
6 device.

1 35. A method performed by a first computing device of an information processing
2 system, the method comprising:

3 through a first local area network, receiving an information packet from a global computer
4 network; and

5 through a second local area network, in response to at least the information packet and a
6 state of at least one of the first computing device and a second computing device, selectively
7 outputting the information packet to the second computing device, such that the output
8 information packet bypasses the first local area network.

1 36. The method of Claim 35 wherein the first computing device is a network interface
2 card.

1 37. The method of Claim 35 wherein the information packet originates from a client,
2 and wherein the first local area network is coupled through the global computer network to the
3 client.

1 38. The method of Claim 35 wherein the information packet originates from a client,
2 and wherein the method comprises:

3 through the second local area network, in response to at least the information packet and
4 the state, selectively outputting the information packet to the second computing device by
5 outputting an encapsulated information packet to the second computing device, the encapsulated
6 information packet including the information packet and a reference to a data structure of a
7 connection with the client.

1 39. The method of Claim 38 wherein the reference is included within a single header
2 of the encapsulated information packet.

1 40. The method of Claim 35 wherein the method comprises:
2 through the second local area network, in response to at least the information packet and
3 the state, selectively outputting the information packet to the second computing device for
4 performing an operation in response to the information packet.

1 41. The method of Claim 40 wherein the information packet originates from a client,
2 wherein the first local area network is coupled through the global computer network to the client,
3 wherein the operation includes outputting a response packet to the client through the first local
4 area network and the global computer network, and wherein the method comprises:
5 through the second local area network, in response to at least the information packet and
6 the state, selectively outputting the information packet to the second computing device for
7 outputting the response packet to the client, such that the output response packet bypasses the first
8 computing device.

1 42. The method of Claim 40 wherein the operation is part of a software application.

1 43. The method of Claim 42 wherein the software application is a socket application.

1 44. The method of Claim 35 wherein the information packet is addressed by the client
2 to the first computing device, and wherein the method comprises:
3 receiving the information packet through the first local area network in response to the
4 addressing.

1 45. The method of Claim 35 wherein the method comprises:
2 receiving at least a portion of the state from the second computing device through a third
3 local area network.

1 46. The method of Claim 35 wherein the first local area network includes a hub.

1 47. The method of Claim 35 wherein the first local area network includes a Layer 2
2 switch, and wherein the Layer 2 switch is coupled through a router device to the global computer
3 network.

1 48. The method of Claim 35 wherein the first local area network includes a Layer 3
2 switch, and wherein the Layer 3 switch is coupled to the global computer network.